

DESCRIPTION: Medium Duty, dry press firebrick
 SIZES: Various



TYPICAL TEST DATA

CHEMICAL ANALYSIS [Wt. % Calcined Basis]

Silica [SiO ₂]	62.9
Aluminum Oxide [Al ₂ O ₃]	30.8
Iron Oxide [Fe ₂ O ₃]	2.1
Titanium Dioxide [TiO ₂]	1.7
Potassium Oxide [K ₂ O]	1.5
Magnesium Oxide [MgO]	0.5
Calcium Oxide [CaO]	0.2
Other Oxides	0.3
Total	100.0
Loss on Ignition, 1000°C	0.1

THERMAL CONDUCTIVITY [K-Factor]

At a mean temperature of		Btu/in	W/m°C
		ft ² hr°F	
400°F	[205°C]	8.2	1.18
800°F	[425°C]	8.5	1.23
1200°F	[650°C]	9.0	1.30
1600°F	[870°C]	9.2	1.33
2000°F	[1095°C]	9.5	1.37
2400°F	[1315°C]	9.8	1.41

PHYSICAL PROPERTIES

ASTM C-24	
P.C.E.	29
Service Temperature [max. recommended], °F	2700
Temperature Equivalent [melting], °F	3018
ASTM C-133	
Modulus of Rupture [MOR], psi	977
ASTM C-20	
Apparent Porosity, %	21.3
Apparent Specific Gravity, g/cc	2.6
Bulk Density [fired] lb./ft ³	130.2
Water Absorption, %	9.8
ASTM C-16 Schedule 3 [% deformation]	
Load Test at 2640°F	-6.8
ASTM C-113 Schedule B [% linear]	
Reheat Change at 2550°F	-2.8
ASTM C-38 2910°F preheat	
Panel Spalling Loss, % wt.	9.5

We certify that SMITHFIELD (Unbranded) Dry Press Firebrick manufactured at our Alsey, Illinois plant conforms to ASTM Specification C-27 - Class 4.1.4 and 4.1.5 for Medium Duty and Low Duty respectively and C-1261-98 (which includes C-24 and C-67), as well as, C-16, C-20, C-24, C-38, C-113, C-133.

SDS AVAILABLE UPON REQUEST

The above properties represent average results of typical data produced from standard ASTM test methods on a 9" straight. Specifications should not be considered guaranteed. Alsey Refractories Company makes every effort to ensure consistency in our products; however, properties may vary due to standard statistical manufacturing deviations. Alsey Refractories Company reserves the right to modify this data at any time without prior notice.



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